

Amendments to the Claims

Claim 1 (currently amended): ~~System A system for profiling the effect effects of perturbations in a biological system characterised in that it comprises comprising~~ means for recording signals from a sample of the biological system, means for applying a perturbation to said sample and means for comparing signals able to compare signals from said sample before said perturbation is applied to said sample with signals from said sample after said perturbation has been added to said sample.

Claim 2 (currently amended): ~~System in accordance with claims characterised in that~~ The system of claim 1, wherein said means for comparing signals is provided with means for producing an output representing the differences between signals from said sample before said perturbation is applied to said sample and signals from said sample after said perturbation has been applied to said sample.

Claim 3 (currently amended): ~~System in accordance with claim 2 characterised in that it is provided with~~ The system of claim 2, further comprising means for comparing the output representing the differences between signals from said sample before said perturbation is applied to said sample and signals from said sample after perturbation has been applied to said sample with outputs representing previously tested perturbations.

Claim 4 (currently amended): ~~System in accordance with claim 3 characterised in that it is provided with~~ The system of claim 3, further comprising means for recognising if the output representing the differences between signals from said sample before said

perturbation is applied to said sample and signals from said sample after said perturbation has been applied to said sample is the same as, or similar to, an output representing previously tested perturbation.

Claim 5 (currently amended): ~~System in accordance with claim 3 or 4 characterised in that said system is provided with~~ The system of claim 3, further comprising a rank ordering means for ranking the output representing the differences between signals from said sample before said perturbation is applied to said sample and signals from said sample after said perturbation has been applied to said sample against the outputs representing previously tested perturbations.

Claim 6 (currently amended): ~~System in accordance with any of the previous claims characterised in that~~ The system of claim 1, wherein said perturbation is a drug candidate.

Claim 7 (currently amended): ~~System in accordance with any of claims 1-5 characterised in that~~ The system of claim 1, wherein said perturbation is a disease.

Claim 8 (currently amended): ~~Method A method~~ for profiling perturbations in a biological system ~~characterised by comprising~~ the steps of:

detecting pre-perturbations signals from a sample (21) of a biological system (21) before a test perturbation is applied to said sample and recording said signals;
applying said test perturbation to said sample (21) ~~and~~ and detecting and recording post-perturbation signals from the sample (21), and

processing said pre-perturbation and post-perturbation signals in order to produce a perturbation response result which is characteristic of the perturbation.

Claim 9 (currently amended): ~~Method in accordance with claim 8 characterised by the further step of~~ The method of claim 8, further comprising comparing the perturbation response result for the test perturbation against perturbation results stored in a database containing previously determined perturbation results.

Claim 10 (currently amended): ~~Method in accordance with claim 9 characterised by the step of~~ The method of claim 9, further comprising a rank ordering the perturbation result from the test perturbation against the previously determined perturbation response results whereby the previously determined perturbation response result for a known perturbation which most closely corresponds to the test perturbation response result for the perturbation is ranked highest, the perturbation response result for another known perturbation which next most closely matches the test perturbation response result for the perturbation is ranked second highest, and so on.

Claim 11 (currently amended): ~~Method in accordance with any of claims 8-10~~ The method of claim 1, wherein said test perturbation is a drug candidate.

Claim 12 (currently amended): ~~Method~~ A method of doing business comprising the step of providing a database of perturbation response results wherein a perturbation response result is a dataset representing the response of a biological system to a perturbation.

Claim 13 (cancelled)